

REMARKS

Favorable reconsideration of this application is requested in view of the above amendments and the following remarks. Claims 9, 19, 20, and 21 are hereby amended. Claim 18 is canceled without prejudice or disclaimer.

Applicants request consideration of the Supplemental IDS filed on February 16, 2005.

The amendment of claim 9, reciting "a piezoelectric substrate, a first interdigital electrode and a second interdigital electrode formed on the substrate so that the first and second interdigital electrodes are opposed to each other, the first and second interdigital electrodes including an insulating layer in surfaces thereof", is supported, for example, by Figure 2, page 10, lines 4-10, and page 3, lines 23-24. The amendment of claim 9, reciting "(c) forming the insulating layer in surfaces of the first and second interdigital electrodes by doping the surfaces of the first and second interdigital electrodes with impurities after the process (a)", is supported by page 10, lines 16-18. The amendment of claim 9, reciting "wherein the processes (b) and (c) are performed at the same time by doping with the substance used for the process (b)", is supported by page 14, lines 21-23.

Claims 9 and 17 were rejected as being anticipated by Ogura (US 4,707,059). Applicants traverse this rejection. Claim 9 requires a method for producing a surface acoustic wave device including forming a doping region in a surface between the first and second interdigital electrodes, and forming an insulating layer in surfaces of the first and second interdigital electrodes, wherein forming the doping region and the insulating layer are performed at the same time by doping with the substance used for the process of forming the doping region. Ogura does not suggest an insulating layer formed in a surface of electrode 46. Rather, Ogura teaches that ions or the like are uniformly introduced into the portions in which the gratings 43 and the electrode 46 are absent, whereby a wave guide layer 42 is formed (see column 4, lines 18-32).

Further, Ogura does not teach the doping region required by claim 9. In contrast, Ogura teaches a wave guide layer 42 that is provided for light propagation. The doping region of claim 9 is provided to suppress discharge between the IDT electrodes, thus preventing electric charges from being accumulated on the substrate (see page 3, lines 12-19).

Since Ogura neither teaches the claimed insulating layer nor doping region, the reference could not suggest a doping region and an insulating layer being formed at the same time, as required by claim 9.

Favorable reconsideration of claims 9 and 17 is requested.

Claims 10-16 and 18-21 were rejected as being unpatentable over Ogura and further in view of Nishihara (US 5,796,205), Sze (pages 32-33 of VLSI), and Ohkubo (US 5,923,231). Applicants traverse this rejection. Claims 10-16 and 19-21 should be considered allowable for at least the same reasons as claim 9, from which they depend. Nishihara, Sze, and Ohkubo do not remedy the deficiencies of Ogura, as previously noted. Applicants are not conceding the correctness of the rejection as applied to the rejected claims.

Further, Ohkubo does not suggest an insulating layer that is formed in surfaces of the electrodes, as required by claim 9. Rather, Ohkubo teaches an insulating film 18 formed, for example, by sputtering of SiO₂ on (not in) the surface of electrode 12 (see column 14, lines 37-41 and Figure 27B). Therefore, Ohkubo does not suggest that a doping region is formed in the surface of the substrate at the same time as the insulating film 18 is formed. Sputtering would not cause SiO₂ to be implanted in the substrate between the electrodes 12.

Even further, Ohkubo does not suggest that the impurities for forming the insulating layer and the doping region are oxygen or nitrogen, as required by claim 20. It

would not be possible to deposit a layer of oxygen or nitrogen gas by the sputtering process taught by Ohkubo.

Favorable reconsideration of claim 10-16 and 19-21 is requested.

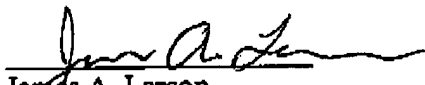
Applicants note that even if WO98/57426, cited in the supplemental IDS filed February 16, 2005, discloses doping into a SAW device, the reference does not suggest an insulating layer being formed at the same time as a doping region, as required by claim 9. Further, WO98/57426 does not suggest doping of oxygen or nitrogen to form the insulating layer.

In view of the above, favorable reconsideration in the form of a notice of allowance is requested. Any questions regarding this communication can be directed to Applicants' primary attorney, Douglas P. Mueller, Reg. No. 30,300, at (612)455-3804.

Respectfully Submitted,

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